

WHAT IS CLAIMED IS:

1. A recording material processing apparatus for processing recording materials of plural types that are different in a processing condition, comprising:

5 plural liquid baths for processing a recording material in passing said recording material through and serially;

plural transporting mechanisms, associated with respectively said liquid baths, for transporting said
10 recording material through said liquid baths;

plural driving units for respectively driving said transporting mechanisms at a variable transporting speed; and

a controller for controlling said driving units, and
15 for changing said transporting speed of said transporting mechanisms individually from one another according to a type of said recording material among said types.

2. A recording material processing apparatus as defined in claim 1, wherein said recording material is a
20 photosensitive material in a sheet form with one size, and said plural liquid baths include a color developing bath, a fixing bath and a rinsing bath arranged in a downstream sequence.

3. A recording material processing apparatus as
25 defined in claim 2, wherein said controller has a data table constituted by information of said types of said photosensitive material, and information of said transporting speed, associated with said types, for respectively said liquid baths.

4. A recording material processing apparatus as defined in claim 2, wherein each of said driving units includes:

one motor; and

5 a clutch brake mechanism, set between said motor and said transporting mechanism, for shifting between connected and disconnected states upon a change in said transporting speed.

5. A recording material processing apparatus as
10 defined in claim 2, wherein each of said driving units includes a motor for rotating at a speed according to said transporting speed.

6. A recording material processing apparatus as
15 defined in claim 2, further comprising plural sensors, associated with respectively said liquid baths, for detecting passage of said photosensitive material through said liquid baths;

wherein if a type of a succeeding photosensitive material to be processed is different from a type of said
20 photosensitive material, said controller is responsive to an output of respectively said sensors, and changes over said transporting speed of a liquid bath after passage of said recording material among said liquid baths.

7. A recording material processing apparatus as
25 defined in claim 6, further comprising:

a drier section positioned downstream from said plural liquid baths;

a drier-path transporting mechanism for transporting said photosensitive material through said drier section;
30 and

a drier-path driving unit for driving said drier-path transporting mechanism, and for changing said transporting speed of said drier-path transporting mechanism according to said type of said succeeding photosensitive material by
5 control of said controller.

8. A recording material processing apparatus for processing recording materials of plural types that are different in a processing condition, comprising:

plural liquid baths, arranged sequentially on a path,
10 for processing a recording material in passing said recording material through and serially, said plural liquid baths constituting plural bath groups including a first bath group and a second bath group disposed downstream from said first bath group;

15 a first transporting mechanism for transporting said recording material through said first bath group;

a first driving unit for driving said first transporting mechanism at a variable transporting speed;

a second transporting mechanism for transporting said
20 recording material through said second bath group;

a second driving unit for driving said second transporting mechanism at a variable transporting speed;
and

a controller for controlling said first and second
25 driving units, and for changing said transporting speed of said first and second transporting mechanisms individually from one another according to a type of said recording material among said types.

9. A recording material processing apparatus as
30 defined in claim 8, wherein said recording material is a photosensitive material in a sheet form with one size.

10. A recording material processing apparatus as defined in claim 9, wherein said first and second bath groups are supplied with a succeeding photosensitive material next to said photosensitive material, and when
5 said photosensitive material exits from said first or second bath group, said controller controls said first or second driving units, and sets said transporting speed according to a processing condition of said succeeding photosensitive material before entry of said succeeding
10 photosensitive material into said first or second bath group.

11. A recording material processing apparatus as defined in claim 10, further comprising plural sensors, associated with respectively said bath groups, for
15 detecting passage of said photosensitive material through said bath groups;

wherein said controller is responsive to an output of respectively said sensors, and changes over one driving unit to said transporting speed according to a type of said
20 succeeding photosensitive material, said one driving unit being among said driving units and associated with one bath group after passage of said photosensitive material among said bath groups.

12. A recording material processing apparatus as defined in claim 10, wherein said plural liquid baths
25 include a color developing bath, a fixing bath and rinsing baths arranged in a downstream sequence, said first bath group has said color developing bath and said fixing bath, and said second bath group has said rinsing baths.

13. A recording material processing apparatus as defined in claim 10, wherein said plural bath groups
30 further includes a third bath group, said plural liquid

baths include a color developing bath, a fixing bath and rinsing baths arranged in a downstream sequence, said first bath group has said color developing bath, said second bath group has said fixing bath, and said third bath group has
5 said rinsing baths.

14. A recording material processing apparatus as defined in claim 10, wherein said controller has a data table constituted by information of said types of said photosensitive material, and information of said
10 transporting speed, associated with said types, for respectively said liquid baths.

15. A recording material processing apparatus as defined in claim 10, wherein said first bath group is supplied with said succeeding photosensitive material upon
15 a lapse of delay time T after supplying said first bath group with said photosensitive material, and said delay time T satisfies a condition of:

$$T = L2/V1 - L1/V2$$

where V1 is a transporting speed of said
20 photosensitive material,

V2 is a transporting speed of said succeeding photosensitive material, and is higher than V1,

L1 is a path length of transport through said first bath group, and

25 L2 is a path length of transport through said second bath group.

16. A recording material processing apparatus as defined in claim 15, further comprising an advancing mechanism, actuated upon said lapse of said delay time T,
30 for supplying said first bath group with said succeeding photosensitive material.

17. A recording material processing apparatus as defined in claim 16, further comprising:

a drier section positioned downstream from said second bath group;

5 a drier-path transporting mechanism for transporting said photosensitive material through said drier section; and

a drier-path driving unit for driving said drier-path transporting mechanism, and for changing said transporting speed of said drier-path transporting mechanism according to said type of said succeeding photosensitive material by control of said controller.

18. A recording material processing apparatus for processing recording materials of plural types that are different in a processing condition, comprising:

plural liquid baths, arranged sequentially on a path, for processing a recording material in passing said recording material through and serially;

a first transporting mechanism for transporting said recording material through respectively said liquid baths;

a first driving unit for driving said first transporting mechanism at a variable transporting speed;

a drier section disposed downstream from said liquid baths;

25 a second transporting mechanism for transporting said recording material through said drier section;

a second driving unit for driving said second transporting mechanism at a variable transporting speed; and

a controller for controlling said first and second driving units, and for changing said transporting speed of said first and second transporting mechanisms individually from one another according to a type of said recording material among said types.

19. A recording material processing apparatus as defined in claim 18, wherein said recording material is a photosensitive material in a sheet form with one size, and said plural liquid baths include a color developing bath, a fixing bath and a rinsing bath arranged in a downstream sequence.

20. A recording material processing apparatus as defined in claim 19, wherein said transporting speed of said first transporting mechanism is different from said transporting speed of said second transporting mechanism in treating said photosensitive material commonly.

21. A recording material processing apparatus as defined in claim 20, wherein said second transporting mechanism is operable for transporting said photosensitive material at a low speed or intermittently for setting said transporting speed of said first transporting mechanism lower than said transporting speed of said second transporting mechanism.

22. A recording material processing apparatus as defined in claim 21, further comprising an advancing mechanism for supplying said first bath group with said photosensitive material being exposed.

23. A recording material processing apparatus as defined in claim 22, wherein said plural liquid baths are supplied with a succeeding photosensitive material next to said photosensitive material, and said advancing mechanism provides delay in starting supply of said succeeding

photosensitive material to said plural liquid baths in consideration of said transporting speed of said second transporting mechanism for said succeeding photosensitive material.

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